WHAT IS CLAIMED IS:

1.   A system operable to generate a message related to a control unit of an automation system, the system comprising:

a data transmission system in communication with the control unit and in further communication with a receiving device,

wherein the message is an e-mail message and the data transmission system is an Intranet and/or the Internet and the control unit comprises means for generating the message for a specific receiving device addressable with a pre-defined address and, wherein further the message has an address field to identify a recipient of the corresponding message, and the receiving device has means to receive the message sent by the control unit and automatically respond to the message.

2.   The system as claimed in claim 1, wherein the message has an identification field for inserting a message identification that is individually assigned to each message and the control unit comprises means to receive an acknowledgment returned by the receiving device which is intended for the control unit, said acknowledgment comprising the identification associated with the message as an acknowledgment identification, and the control unit further comprising means to compare the acknowledgment identification contained in acknowledgment with the message identification contained in the transmitted message.

3.   A system as claimed in claim 2, wherein the control unit further comprises means for marking the message as acknowledged if the means to compare determines that the

control unit has received an acknowledgment with the message identification assigned to the associated transmitted message.

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4.   A system as claimed in claim 1, wherein the control unit is a stored-program control unit.

5.   A control unit of an automation system comprising a transmitting device operable to generate and transmit an alarm or fault message of the automation system, via a data transmission system, to a receiving device capable of being linked to said data transmission system, wherein the transmitting device comprises means to generate the message as an e-mail message directed through the data transmission system embodied as an Intranet and/or the Internet, wherein the message comprises an address field to identify a recipient of the corresponding message.

6.   A control unit as claimed in claim 5, wherein said control unit is a stored-program control unit.

7.   A control unit as claimed in claim 5, wherein the message comprises an identification field for a message identification individually assigned to each message, the control unit further comprising;

means to receive an acknowledgment returned by the receiving device to the control unit, said acknowledgment comprising the identification associated with the underlying message as the acknowledgment identification, and

means to compare the identification contained in the acknowledgment with the identification contained in the transmitted message.

8.   A method for producing a message of a control unit of an automation system, the method comprising:

sending the message via a data system to a receiving device capable of being linked to the data system, wherein the message is an e-mail message transmitted via an Intranet and/or the Internet to a predetermined receiving device.

9.   The method as claimed in claim 8, wherein the control unit enters a message identification individually assigned to each message into an identification field of the message and the receiving device, after receipt of a message, automatically generates and returns an acknowledgment to the control unit, wherein said acknowledgment contains the identification associated with the underlying message as the acknowledgment identification, and the control unit compares the acknowledgment identification contained in the acknowledgment with the message identification contained in the transmitted message.

10.   The method as claimed in claim 7, wherein receipt of a message is confirmed in the control unit if the control unit received an acknowledgment with the message identification assigned to the associated message.

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11.   The method as claimed in claim 7, wherein the method is used to generate a fault and/or alarm message of a stored-program control unit, a numerical control unit and/or a robot control unit in connection with an automation system.

12.   A system operable to generate a message related to a control unit, said system comprising:

an automation system operable to perform automated functions;

a control unit connected to the automation system operable to detect a fault condition in said automation system and automatically generate a message in response to said detected fault condition;

a data transmission system operable to receive the message from the control unit and transmit the message to one or more recipients, wherein said recipients acknowledge receipt of said message.

13.   A system operable to generate a message related to a control unit, said system comprising:

an automation system operable to perform automated functions;

a control unit connected to the automation system, said control unit comprising,

a fault detector operable to detect a fault condition in said automation system;

a message generator operable to generate a message in response to said detected fault condition; and

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a transmitter device operable to transmit the message; said system further comprising;

10   a data transmission system connected to the control unit operable to receive the message from the transmitter of the control unit and transfer the message to one or more recipients in the form of an e-mail message, receive acknowledgment from the recipient and transfer the acknowledgment to the control unit; and

        a comparator operable to compare a message identification of the message and the
15   acknowledgment of the recipient.

        14.   A system in accordance with claim 13, wherein said message is automatically generated as an e-mail message upon detection of said fault condition, and immediately sent to one or more recipients with predefined addresses.

        15.   A system in accordance with claim 13, wherein said acknowledgment comprises:

        a sender identification field containing an identification of the recipient from which the acknowledgment was generated;

5   a date and time field containing information regarding the date and time that the acknowledgment was created;

        an addressee identification field containing identification of the intended control unit;

        a reference field containing a specific identification for a message to which said acknowledgment corresponds; and

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10   a text field containing text related to a remedial action.

16.   A system in accordance with claim 13, wherein said message comprises:

a sender identification field containing an identification of the control unit from which the message was generated;

a date and time field containing information regarding the date and time that the

5   message was created;

a recipient identification field containing identification of the intended recipient;

a reference field containing a specific identification for the message; and

a text field containing text related to said fault condition.

17.   A control unit operatively connected to an automation system and a data transmission system, said control unit comprising:

a fault detector operable to detect a fault in said automation system;

a message generator operable to automatically generate a fault message indicative of

5   said fault, wherein said fault message comprises at least a message identification specifically identifying the message;

a transmission device operable to transmit the fault message via the transmission system to one or more recipients, wherein the recipients are specifically addressed to receive the message; and

a receiving device operable to receive an acknowledgement generated by said

recipient(s), said acknowledgement comprising at least an acknowledgment identification

specifically identifying the message which it is acknowledging.

18.   A method for generating a notification message in response to an event

occurring within an automation system, the method comprising:

detecting the event in the automation system;

automatically generating, in a control unit, the notification message in response to the

event;

placing the notification message in a data transmission system and sending the

notification message to a predefined recipient;

automatically generating an acknowledgment in response to receipt of said

notification;

sending the acknowledgment through the data transmission system to the control unit;

and,

recording whether said notification message has been acknowledged.

19.   The method according to claim 18, wherein said notification message is an e-

mail message.

20.   The method according to claim 18, wherein the acknowledgment comprises

software commands performed by said control unit.

21.   A system as claimed in claim 1, wherein the control unit is a numerical control unit.

22.   A system as claimed in claim 1, wherein the control unit is a robot control unit.

23.   A control unit as claimed in claim 5, wherein said control unit is a numerical control unit.

24.   A control unit as claimed in claim 5, wherein said control unit is a robot control unit.

25.   A control unit in accordance with claim 17, further comprising:

an identification comparator operable to compare the message identification and the acknowledgment identification; and

a recordation device operable to record results of the operation of the identification comparator.